

Process Management of Instruments from Outside of the Operating Room

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Abstract: Objective: To explore the methods and effects of instrument management outside the operating room. Method: To understand the use of instruments outside the operating room, and strengthen the management of instruments outside the operating room to effectively improve medical safety and ensure the safety of patients. Results: Through the standardized management of the instruments outside the operating room, the postoperative infection rate decreased significantly. Conclusion: Strengthening the management of instruments and their business personnel outside the operating room can effectively reduce medical safety hazards and ensure the safety of surgery.

1. Introduction

The operating room is a relatively special functional department, which is a place for patients to relieve their pain through surgical procedures. Due to the wide range of activities, the flow of people is large and the work pace is fast. At the same time, the patient's condition is complicated and unexpected situations occur. No matter which part of the mistake, it will cause irreparable harm to the patient. With the rapid development of biomedicine, biomaterials and tissue engineering, there are more and more kinds of materials such as implants in orthopedics, and their use is more and more specific. At the same time, each material has its own special supporting tools. The form of immediate delivery by the manufacturer or dealer as needed is born. These instruments have the advantages of strong surgical focus, small tissue trauma, time saving, low efficiency, good prognosis, etc. However, these surgical instruments are expensive, versatile, professional, and rapid, and the general hospitals are not routinely equipped. More temporary borrowing is used. This type of surgical instrument that is temporarily used by the device dealer to the operating room of the hospital is called a foreign device. Due to the frequent transmission of foreign devices between hospitals and patients, the quality of the factory and the quality of the staff and the knowledge of the medical staff are uneven, which brings great hidden dangers to the operation safety. Therefore, how to manage foreign devices has become an important issue in operating room management. The operating room divides the foreign instruments into long-term and temporary storage. The long-term storage of foreign instruments is managed in accordance with the conventional surgical instruments in the operating room. The foreign devices referred to in this article are mainly foreign devices that are temporarily delivered.

2. Management of the device manufacturer

According to the needs of surgery, the director of the orthopedics application, the equipment department bidding, the dean's instructions, the winning agent to provide various types of documents to the hospital, verified by the equipment qualification certification, and notified the surgery center, enter the hospital equipment company Name for easy management.

And to verify the certificate of conformity of the product, import registration certificate, permit and other health authorities, and not to use medical equipment that has not been registered, expired

or eliminated. Surgery and staff members must be reviewed by the medical department and go through relevant procedures before entering the operating room. Organized by the head nurse of the operating room and the specialist nurses, the uniform management of the pre-employment system for the mechanical company and the Taiwan staff. The contents include: the operating room environment, relevant rules and regulations, aseptic technical principles, hospital sense control knowledge, etc., and regular hand sampling monitoring to dynamically grasp the implementation of aseptic technology. Each device manufacturer and the station staff are relatively fixed one or two, and all the personnel in Taiwan are regularly assessed, and the qualification certificate can be obtained. Personnel replacement should be re-trained and strictly prohibited from being employed. Each training and assessment is properly checked in and registered for future reference.

3. Preoperative management of foreign devices

On the 1st day before surgery, the surgeon fills in the medical implant consumables application form according to the operation needs and patient requirements, and fills in the patient bed number, name, gender, age, hospital number, operation name, name of the implant to be used, and specification model. , manufacturers, agents, the amount of use, consumables prices and reasons for application, after the approval of the director, enter the equipment section. The equipment department informs the equipment company to stock up, and both the equipment department and the equipment manufacturer check the quality of the packaging material, the product name, the quantity, the health license number, the sterilization date, the sterilization effect and the expiration date, etc. . After bringing the foreign devices and implants to the operating room with the staff, and checking with the operating room nurses again, fill out the “Tracing Registration Form for Surgery Outdoors“ and the “Registration Form for Surgery of External Medical Devices“ and attach the device list. Two copies. In preparation for re-checking with the operating room nurse. After the count is completed, it is handed over to the Disinfection Supply Center.

After the supply room personnel receive the foreign instruments, the professional nurses classify and clean the instruments according to the quality requirements of the instruments. The detachable instruments must be disassembled to ensure the quality of cleaning and disinfection. After cleaning and disinfecting the equipment, the full-time nurse sorts the instruments according to the equipment inventory list, and strictly controls the size and weight of the equipment package according to the requirements of the “Disinfection Technical Specifications“ to avoid excessive and excessive weight of the equipment package, thus affecting the sterilization effect. The chemical indicator card in the bag is placed in each layer of the device, and the chemical indicating tape and the identification card are attached to the outside of the device, indicating the operating department, the name of the surgical patient, the hospital number, the name of the surgery, and the name of the device. Ensure that the device is properly dispensed.

After the equipment is packaged, the sterilization method is selected according to the different requirements of the material of the device. All the autoclaving can be autoclaved to ensure the quality of sterilization, and the instruments and implants that have passed the sterilization can be released and used. After confirming that the sterilization is qualified, no moisture, no pollution, no loose bag, and the validity period is correct, the nurses in the disinfection supply center will put the instrument package in the sterile goods transport vehicle and send it to the operating room through the sterile area. The nurse in the operating room will the kit is delivered directly to the appropriate operating room to ensure safe delivery of the device. The establishment of the orthopedic specialist group in the operating room: In order to meet the needs of orthopedic surgery specialists, and to improve the level of orthopedic surgery care, the nurses with rich experience in orthopedic surgery, with nurses of different working years, set up a specialist group, specializing in orthopedic surgery. Cooperation and management. The members of the orthopedic specialist team are responsible for recording the habits and surgical coordination points of each orthopaedic surgeon.

4. Intraoperative management of external devices

Strict sterility of the device and related operations is a prerequisite for safe operation. To carry out aseptic management during the operation of foreign instruments from the following aspects, first, the followers of foreign devices are required to have a strong aseptic concept. Second, prepare a dedicated instrument Table for foreign devices. The third strict supervision of the hands of the staff of the hands of the brush, wearing surgical gowns, wearing sterile gloves and other aseptic techniques. Before the start of the operation, carefully check the number of instruments. The equipment and the staff of the station will check the number of instruments again. At the same time, the roving nurses should check according to the registration at the time of receiving. If there is any problem, report it in time and make relevant records. The roving nurse must make a record of using the implant, attach the corresponding certificate and barcode to the back of the surgical care record sheet, and then attach a copy to the surgical device use sheet, and hand it to the head nurse after the operation. And fill out the "Important Supplies Use Traceability Management Registration Form", sign the device and put it on the record, and make relevant records on the special implant register. Usually, the external device should be taken away by the follow-up staff after the completion of the relevant surgery. In order to prevent the occurrence of cross-infection, the external device should be treated strictly. For external devices that need to be taken away immediately, soak them in a 1000mg/L chlorine-containing disinfectant for more than 30min after the cleansing is completed. Strictly implement the disinfection and isolation system to prevent unsterilized devices from flowing out of the hospital.

First, the department clarifies that all external devices use a cleaning-disinfection-sterilization workflow. For emergency surgery, it is sterilized after manual cleaning. For external equipment that is postponed or cancelled, the staff will remove the packaging in the contaminated area, and let the manufacturer remove the equipment after the handover is clear. Second, there is no chemical indicator card or irregularity in the foreign device package, and the instrument package is oversized and sterilized. Strictly implement relevant management regulations and set up a special medical device adverse event monitoring team. Established a foreign device monitoring team with a head nurse as the leader, a hospitalized monitoring nurse, a device nurse, and an orthopaedic specialist nurse. Responsibility to people, regular inspections of the use of external devices to ensure safe use. Third, we divide the instruments outside the operating room into two categories for management, which are divided into long-term storage and temporary delivery. Foreign instruments stored for a long time: There are seven companies whose equipment is stored in our hospital. This type of equipment is fully integrated into the standardized management process. External equipment for temporary delivery: The rental company is mainly notified to the emergency surgery, and the surgical instruments are sent to the decontamination area of the operating room. After the two parties have checked, all the equipments are sent to be cleaned and disinfected, and they are packed and sterilized by specialist nurses. After use, the surgical instruments are counted and cleaned by the specialist nurses, and then checked again with the company personnel, and then recovered by the equipment company personnel after the error.

Fourth, the integrated management of the operating room and the supply room was implemented, and the process of handing over surgical instruments with the manufacturer was developed. Before the operation, the doctor informs the equipment department to contact the required equipment according to the operation needs. After the equipment is delivered to the supply room, the supply room personnel strictly check and check the quality of the equipment according to the delivery order provided by the manufacturer. After registration, the registration is signed and the external equipment is re-cleaned. Packaging, sterilization, biological monitoring, after passing the test, together with the manufacturer's delivery list to the operating room. This link guarantees the cleaning, disinfection and sterilization of foreign instruments, and meets the requirements of the Hospital Disinfection Supply Center Management Code. Fifth, face-to-face handover is required when receiving with the manufacturer, including the quality, quantity, and double check of the device. According to the different nature of the surgical instruments, different effective sterilization

methods are selected. Preventing postoperative infection due to incomplete sterilization, leading to surgical failure. Electric products such as electric drills are checked by nurses for leakage during use to ensure stable performance.

5. Conclusion

With the development of medicine, foreign medical devices are increasingly used in clinical practice. The management of medical devices outside the operating room is a continuous improvement process. Scientific management means is an important guarantee for improving the quality of care and ensuring medical safety. The cleaning and quality management of the equipment is the key to ensure the quality of aseptic products. The whole process of sterilization is the only way to ensure the high quality supply of sterile products, and it is an important barrier to control hospital infection. Establish a standardized management process, from standard procurement management, strict acceptance, cleaning, packaging and sterilization by professionals, improve the use of records and other aspects, to ensure that the external medical devices are sterile during use, and provide patients with practical Timely, accurate, safe and effective medical care services can satisfy patients and satisfy the surgeon.

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